

Notice of Allowability

Application No.

10/071,910

Examiner

Eduardo Colon-Santana

Applicant(s)

STEDMAN, IAN D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's response filed 6/21/2004.
2. ☒ The allowed claim(s) is/are 1-3,5,9,10,14,18,19,21-39,41,42,52-54,65-73,99 and 101.
3. ☒ The drawings filed on 08 February 2002 and 01 March 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DAVID MARTIN
SUPERVISORY PATENT EXAMINER
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DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I, identified by claims 1-5, 9, 10, 12, 14, 18, 19, 21-43, 52-54, 64-74 and 99-101 in the response filed on 6/21/2004 is acknowledged.

2. Claims 45-51, 55, 75-82 and 84-98 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the response filed on 6/21/2004.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Roberto Capriotti on 9/13/2004.

4. The application has been amended as follows:

In the Claims:

Cancel claims 4, 12, 40, 43, 64, 74 and 100.

Rewrite claim 1 as follows:

A motor, comprising:

a stator containing a first winding and a second winding driven by an alternating current;

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a rotor arranged to rotate relative to the stator, the rotor containing a third winding and a fourth winding, the rotor generating a magnetic field having an amplitude and a phase angle relative to the alternating current;

a first circuit in communication with the third and fourth windings for controlling the phase angle of the generated magnetic field and generating a rotating stator magnetic field that is in phase-lock with the alternating current;

a second circuit in communication with and driving the first and second windings for controlling the rotational speed of the rotating stator magnetic field;

a third circuit in communication with the third and fourth windings for controlling the magnitude of the generated magnetic field;

a fourth circuit for controlling the magnitude of the rotating stator magnetic field; and

a generator connected to the rotor for generating power for operating the circuit.

Rewrite claim 10 as follows:

A motor comprising:

a stator containing a first winding and a second winding driven by an alternating current;

a rotor arranged to rotate relative to the stator, the rotor containing a third winding and a fourth winding, the rotor generating a magnetic field having an amplitude and a phase angle relative to the alternating current;

a circuit in communication with the third and fourth windings for controlling the phase angle of the generated magnetic field and generating a rotating magnetic field that is in phase-lock with the alternating current; and

a switch in communication with at least one of the third and fourth windings of the rotor for switching off the rotor at a predetermined rotor speed;

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wherein the circuit further comprises means for transferring power for operating the circuit from a stationary portion of the motor to the rotor.

Rewrite claim 30 as follows:

A motor, comprising:

a stator containing a winding driven by an alternating current;

a rotor arranged to rotate relative to the stator, the rotor containing a winding, and the rotor generating a magnetic field having an amplitude and a phase angle relative to the alternating current;

a control transformer connected to the rotor, the control transformer containing a primary winding and a secondary winding, the control transformer secondary winding in communication with the rotor winding, wherein the control transformer is for transmitting control information and power to the rotor;

an active control circuit in communication with the control transformer primary winding, the control circuit in communication with the rotor winding for controlling the phase angle of the generated magnetic field and for generating a rotating magnetic field that is in phase-lock with the alternating current;

an angular position feedback device in communication with the control circuit for providing an instantaneous angular position of the rotor and an instantaneous angular velocity of the rotor to the control circuit; and

a power generator connected to the rotor shaft for supplying power to the control circuit.

Rewrite claim 34 as follows:

A motor, comprising:

a stator containing a winding driven by an alternating current;

a rotor arranged to rotate relative to the stator, the rotor containing a winding, and the rotor generating a magnetic field having an amplitude and a phase angle relative to the alternating current;

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a control transformer connected to the rotor, the control transformer containing a primary winding and a secondary winding, the control transformer secondary winding in communication with the rotor winding;

a control circuit in communication with the control transformer primary winding, the control circuit in communication with the rotor winding for controlling the phase angle of the generated magnetic field and for generating a rotating magnetic field that is in phase-lock with the alternating current;

an angular position feedback device in communication with the control circuit for providing an instantaneous angular position of the rotor and an instantaneous angular velocity of the rotor to the control circuit;

a start circuit disposed between the stator winding and the rotor winding, the start circuit in communication with the control circuit;

a thermal switch in communication with the stator winding for disconnecting a source of alternating current from the stator; and

a power generator connected to the rotor shaft for supplying power to the control circuit.

Rewrite claim 41 as follows:

A motor, comprising:

a stator containing a plurality of windings driven by an alternating current;

a rotor arranged to rotate relative to the stator, the rotor containing a plurality of windings, and the rotor generating a magnetic field having an amplitude and a phase angle relative to the alternating current;

a plurality of control transformers connected to the rotor shaft, the plurality of control transformers each containing a primary winding and a secondary winding, the plurality of control transformers each containing a secondary winding in communication with the plurality of rotor windings, wherein the plurality of control

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transformers is for transmitting control information and power to the rotor;

an active control circuit in communication with the plurality of control transformers primary windings, the control circuit in communication with the plurality of rotor windings for controlling the phase angle of the generated magnetic field and for generating a rotating magnetic field that is in phase-lock with the alternating current;

an angular position feedback device in communication with the control circuit for providing the instantaneous angular position of the rotor and the instantaneous angular velocity of the rotor to the control circuit; and

a power generator connected to the rotor shaft for supplying power to the control circuit.

In claim 52 line 10, delete -- and --- after "rotor;".

In claim 52 line 13, insert -- and means for generating power connected to the rotor shaft for supplying power to the means for controlling. --- after "winding;".

In claim 53 line 12, replace the adverb -- the with a --- after "with".

In claim 53 line 14, delete -- and --- after "winding;".

In claim 53 line 16, insert -- and means for generating power connected to the rotor shaft for supplying power to the active means for controlling. --- after "signals;".

In claim 54 line 15, delete -- and --- after "windings;".

In claim 54 line 17, insert -- and means for generating power connected to the rotor shaft for supplying power to the active means for controlling. --- after "angle;".

In claims 65, 67, 70 and 72, change the dependency to claim 73.

In claim 99 line 1, insert -- first --- before "circuit".

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Allowable Subject Matter

5. Claims 1-3, 5, 9, 10, 14, 18, 19, 21-39, 41, 42, 52-54, 65-73, 99 and 101 are allowed.

6. The following is an examiner's statement of reasons for allowance: In view of the limitations, the prior art does not disclose or suggest a motor having a stator with a first and second windings driven by alternating current; a rotor with a third and fourth windings generating a magnetic field having an amplitude and phase angle relative to the alternating current, wherein the rotor is arranged to rotated relative to the stator and having a power generator connected to the rotor shaft to supply power to a control circuit, which in communication with a control transformer having primary and secondary windings transmit control information and power to the rotor for controlling the phase angle and to generate a rotating magnetic field that is in phase lock with the alternating current.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eduardo Colon-Santana whose telephone number is (571) 272-2060. The examiner can normally be reached on Monday thru Thursday 6:30am - 5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Martin can be reached on (571) 272-2800 X.37. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ECS
September 15, 2004